

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 31 JUL 2006

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Applicant's or agent's file reference 100700.0033P	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/US04/36630	International filing date (day/month/year) 03 November 2004 (03.11.2004)	Priority date (day/month/year) 08 April 2004 (08.04.2004)	
International Patent Classification (IPC) or national classification and IPC IPC: A61K 35/78, 6/00; A23F 5/00 USPC: 424/725, 401, 769, 776, 444; 426/45			
Applicant VDF NUTRACEUTICALS			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 03 May 2006 (03.05.2006)		Date of completion of this report 13 July 2006 (13.07.2006)	
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Michele Flood <i>Janice Ford</i> Telephone No. 571-272-1600	

Form PCT/IPEA/409 (cover sheet)(April 2005)

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on:
- ☒ the international application in the language in which it was filed.
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4(a))
- ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☒ the international application as originally filed/furnished
- ☒ the description:
- pages 1-14 as originally filed/furnished
- pages\* NONE received by this Authority on \_\_\_\_\_
- pages\* NONE received by this Authority on \_\_\_\_\_
- ☒ the claims:
- pages NONE as originally filed/furnished
- pages\* NONE as amended (together with any statement) under Article 19
- pages\* 15-17 received by this Authority on 03 May 2006
- pages\* NONE received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages NONE as originally filed/furnished
- pages\* NONE received by this Authority on \_\_\_\_\_
- pages\* NONE received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/US04/36630**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims <u>2,3,18 and 19</u>	YES
	Claims <u>1,4-17 and 20</u>	NO
Inventive Step (IS)	Claims <u>2,3,19</u>	YES
	Claims <u>1,4-18 and 20</u>	NO
Industrial Applicability (IA)	Claims <u>1-20</u>	YES
	Claims <u>NONE</u>	NO

## 2. Citations and Explanations (Rule 70.7)

Claims 1, 6-9, 11, 13 and 15-17 lack novelty under PCT Article 33(2) as being anticipated by Coleman et al. because Coleman discloses a coffee cherry preparation obtained by extracting an aqueous extract of pulped coffee cherries followed by extracting the mucilaginous residue with alcohol; and, purification thereof, wherein the composition comprises monosaccharides (*e.g.*, arabinose, xylose, and galactose) and coffee mucilage polysaccharides.

Claims 1, 4, 8-11, 13, 15-17 and 20 lack novelty under PCT Article 33(2) as being anticipated by General Foods Corporation (GFC) because GFC discloses a coffee cherry preparation obtained from thermally hydrolyzed coffee. *See* Table 1, on page 11, wherein GFC discloses a roasted coffee extract comprising arabinogalactan, caffeine and trigonelline, *etc.*

Claims 1, 4-7, 12, 14-17 and 20 lack novelty under PCT Article 33(2) as being anticipated by Miljkovic et al. because Miljkovic discloses a composition comprising a coffee cherry obtained by aqueous and alcohol solvent extraction process steps and detoxification thereof to reduce a mycotoxin level.

Claim 18 lacks an inventive step under PCT Article 33(3) as being obvious over the preceding paragraphs because a method of marketing a cosmetic composition wherein the information about a cosmetic product is printed on at least one of a container containing the formulation and a package containing the container would have been well in the purview of one of ordinary skill in the art to optimize the commercialization of a product for the purpose of sale thereof to a consumer base.

Claims 2, 3 and 19 the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed subject matter of a composition comprising a sub-ripe coffee cherry extract.

Claims 1-20 the criteria set out in PCT Article 33(4), and thus meets industrial applicability because the subject matter claimed can be made or used in industry.

**CLAIMS**

What is claimed is:

1. A cosmetic composition comprising a composition prepared from whole coffee cherry.
2. The cosmetic composition of claim 1 wherein the coffee cherry preparation is a preparation from a sub-ripe coffee cherry.
3. The cosmetic composition of claim 2 wherein the sub-ripe coffee cherry is quick-dried such that a mycotoxin level of the coffee cherry is less than 20 ppb for total aflatoxins, less than 10 ppb for total ochratoxins, and less than 5 ppm for total fumonisins.
4. The cosmetic composition of claim 1 wherein the coffee cherry preparation is a preparation from a quick-dried coffee cherry.
5. The cosmetic composition of claim 4 wherein the coffee cherry is quick-dried such that a mycotoxin level of the coffee cherry is less than 20 ppb for total aflatoxins, less than 10 ppb for total ochratoxins, and less than 5 ppm for total fumonisins.
6. The cosmetic composition of claim 1 wherein the coffee cherry preparation comprises at least one of an aqueous extract and an alcoholic extract.
7. The cosmetic composition of claim 6 wherein the extract is prepared from at least two of a bean of the coffee cherry, a pulp of the coffee cherry, a mucilage of the coffee cherry, and a hull of the coffee cherry.
8. The cosmetic composition of claim 1 wherein the preparation comprises at least two classes of compounds selected from the group consisting of coffee acids, coffee polyphenols, essential monosaccharides, coffee mucilage polysaccharides, and trigonelline, wherein the at least two classes of compounds are present in the extract in an amount of at least 1 wt% total.
9. The cosmetic composition of claim 8 wherein the at least two classes of compounds are present in the preparation in an amount of at least 5 wt% total.

**AMENDED SHEET**

PCT/US04/36530 - 03052006

10. The cosmetic composition of claim 8 wherein the class of coffee acid includes a compound selected from the group consisting of chlorogenic acid, ferulic acid, and caffeic acid.
11. The cosmetic composition of claim 8 wherein the class of essential monosaccharides includes a compound selected from the group consisting of arabinose, fucose, mannose, xylose, and galactose.
12. The cosmetic composition of claim 1 wherein the composition is formulated as one of a shampoo, a lotion, a cream, a balm, and an ointment.
13. The cosmetic composition of claim 1 further comprising an information associated with the composition that the composition comprises the coffee cherry preparation.
14. The cosmetic composition of claim 1 further comprising an information associated with the composition that the composition has an effect selected from the group consisting of an antioxidant effect, an anti-inflammatory effect, a UV-protective effect, an antimutagenic effect, a chemoprotective effect, a scar reducing effect, a skin-lightening effect, a moisturizing effect, a wrinkle reduction effect, and an antibacterial effect.
15. A method of marketing a cosmetic composition comprising a step of providing the cosmetic composition and a further step of providing an information that the composition comprises a composition prepared from whole coffee cherry.
16. The method of claim 15 wherein the coffee cherry preparation comprises an extract of the coffee cherry.
17. The method of claim 15 wherein the information is associated with the cosmetic composition.
18. The method of claim 17 wherein the information is printed on at least one of a container containing the formulation and a package containing the container.
19. The method of claim 15 wherein the coffee cherry preparation is a preparation from a sub-ripe coffee cherry.

## AMENDED SHEET

20. The method of claim 15 wherein the coffee cherry preparation is a preparation from a quick-dried coffee cherry.

AMENDED SHEET